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EXAMINER

COSIMANO, EDWARD R

ART UNIT PAPER NUMBER

3629

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,222

Applicant(s)

CURRAN ET AL.

Examiner

Edward R. Cosimano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Applicant should note the changes to patent practice and procedure:

A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;

B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and

C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.

2. The use of various trademark(s), for example, Windows NT, Pentium, Celeron, have been noted in this application:

A) in the paragraph between page 3 line 14, and page 4, line 5, "Referring to Fig. 1, the ... Windows NT ... Windows NT ... modules contain accurate and timely information.";

B) in Table 1 on page 4;

C) in Table 2 on page 5;

D) in the paragraph between page 6, line 18, and page 7, line 2, "The following example illustrates ... Pentium ... 146 provides the current feasibility analysis." ;

E) in the paragraph between page 7, line 18, and page 8, line 7, "Referring to the product ... Pentium. The ... Pentium processor, the Pentium processor ... to obtain a complete list of available chip sets.".

Any trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.

2.1 Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

3. The drawings are objected to because

A) the following errors have been noted in the drawings:

(1) The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

(a) 156 as mentioned in the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units."; and

(b) 208 as mentioned in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product."

(2) The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

(a) 158 note the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... product and generate initial prototype units.";

(b) 20 note the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product."; and

(c) 199 of fig. 5A note the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations."

(3) as can be seen in fig. 4 and from the context of the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units.", in fig. 4 "15" should be -156--, it is noted that this number may have been cut off when this fig. was reproduced.

(4) as can be seen in fig. 5A and from the context of the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product.", in fig. 5A "20" should be -208--, it is noted that this number may have been cut off when this fig. was reproduced.

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3.1 A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3.2 Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

4. The disclosure is objected to because of the following informalities:

A) as required by 37 CFR § 1.84(p(5)) and 37 CFR § 1.121(e) the specification lacks an explicit reference to the nature of:

(1) reference legend(s):

(a) 15 & 158 of fig. 4 in the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units.";

(b) 20, 196 & 208 of fig. 5A in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... proceeds with specifying criteria relevant to the product."; and

(c) 199 of fig. 5A in the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations.";

(2) how the program proceeds after box(es):

(a) 184 of fig. 5A if the inquiry is "YES" in the paragraph at page 15, lines 1-21, "Referring to Figs. 5A and 5B, a flowchart ... 192 as is prompted for additional criteria.";

(b) 164, 166, 168, 208, 224 & 226 of fig. 5A if the inquiry is "NO" in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... proceeds with specifying criteria relevant to the product.";

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(c) 199 of fig. 5A if the inquiry is either “YES” or “NO” in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”;

(d) 228 of fig. 5A if the inquiry is “NO” in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”;

(e) 258, 264 & 268 of fig. 5B if the inquiry is either “YES” or “NO” in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”; and

(f) 230, 232, 243 & 246, of fig. 5A if the inquiry is “NO” in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”; and

(3) exactly how the flow proceed between boxes 264, 266, 268 & 270 of fig. 5A in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”.

In this regard, it is noted that merely mentioning a number with out mentioning the device or operation of the step relies on the drawing to provide support for the disclosure and not to aid in the understanding of the invention, as is the purpose of the drawings (37 CFR § 1.81(a,b)).

Appropriate correction is required.

5. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings.

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Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

6.1 Claims 1-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Elliott (6,446,053) in view of either Cornwell (5,255,207) or Heng et al (6,083,275) or Kumagai (6,496,957).

6.1.1 In regard to claims 1, 3, 4, 6-14, 16-25 & 27-32, Elliott ('053) discloses a computerized designing (CAD) system in which an user connects via a network to centralized computer system and data bases. Once connected, the user is permitted to view and design an item via a series of guiding menus for the selection of various forms/components and the associated functions of the selected forms/components. Further the system determines the estimated cost of the designed item.

6.1.2 Elliott ('053) does not evaluate the design feasibility of the design nor is Elliott ('053) applied to designing circuit boards. However either Cornwell ('207) or Heng et al ('275) or Kumagai ('957) discloses a CAD system that permits the user to modify the design of a product with in various design constraints, for example, size, manufacturability, etc., and determines cost of the designed product. In this manner, the user is saved time, effort and

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money on designs that are either too costly or cannot be manufactured. Since a designer would not want to waste time, effort and money on designs that are too costly or cannot be manufactured, it would have been obvious to one of ordinary skill at the time the invention was made that the CAD system of Elliott ('053) could be modified to consider and display the feasibility of a design as taught by either Cornwell ('207) or Heng et al ('275) or Kumagai ('957).

6.1.3 In regard to the attributes of claims 4, 19 & 24, since the recited attributes would affect the manufacturing process for the designed item, it would have been obvious to one of ordinary skill at the time the invention was made that the CAD system of Elliott ('053) as modified by either Cornwell ('207) or Heng et al ('275) or Kumagai ('957) would consider the attributes.

6.1.4 In regard to claims 2, 5, 15 & 26, it is noted that both Elliott ('053) and Kumagai ('957) use the same basic method of designing items except that Kumagai ('957) is directed to designing circuit boards. Hence, it would have been obvious to one of ordinary skill at the time the invention was made that the CAD system of Elliott ('053) could be modified to be used to design circuit boards as taught by Kumagai ('957) by merely changing the data of the forms/components stored in the data bases of Elliott ('053).

7. The examiner has cited prior art of interest, for example:

A) either Natarjan (EP 0323382 or 4,887,206) which discloses evaluating the cost of a design change in a product as the design change would affect inventory and other products that use the same components.

B) Ferriter et al (5,109,337) which discloses a CAD system that uses menus and graphical representations to guide the user through the process of designing a product and then produces a bill of materials (BOM) and an estimated cost for the product.

C) Venkatachalam, which discloses a CAD system that evaluates a design and design changes based on cost and manufacturability of the design or design change.

D) either Foley (5,249,120) or Fad et al (5,793,632) or Pan et al (5,960,417) which disclose that the cost of a manufactured item is based on the materials used, the labor costs and the cost of each operation in the manufacturing process.

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E) either Sly or Sevcik et al (6,330,542) or Tanaka et al (6,343,285) which disclose a computerized design system that permits the user via the internet to modify the design of a product and determines the cost of the designed product.

F) Asada et al (5,684,713) which discloses a CAD system that permits the user to make design changes to a product and then converts the finished design in to numerical control program for the manufacturing of the design product.

G) Hathaway et al (6,425,110) which discloses a CAD system that permits the user to determine the optimum modified the design of a product based on the determined the cost of the designed product.

8. The shorten statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

9.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

9.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

9.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

09/17/03



Edward R. Cosimano

Primary Examiner A.U. 3629